



**CHRIST
NAGAR
COLLEGE**

A
CMI
Educational
Institution

Affiliated to
the University
of Kerala

MARANALLOOR, THIRUVANANTHAPURAM

Manual for CO-PO-PSO Attainment and Assessment Process



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1. VISION AND MISSION OF THE INSTITUTION

VISION

To be a national leader in transforming lives through an excellent, innovative, radical, rigorous, relevant and compassionate approach to education.



MISSION

Christ Nagar College inspires, prepares, and empowers students to succeed in a changing world



2. STATEMENT OF OBE

Outcome-Based Education (OBE) is a student-centric teaching and learning methodology in which the course delivery, assessment are planned to achieve stated objectives and outcomes. It focuses on measuring student performance i.e. outcomes at different levels.

Outcome-based education (OBE) is an educational delivery model that focuses on mapping, measuring, and achieving predetermined educational goals to help students learn, develop, and nurture skills that would help them grow in their professional as well as personal life.

We usually follow the ‘constructive alignment’ process for building the curriculum for OBE. This term was given by Professor John Biggs in 1999. It means the process of creating a learning environment that encourages various learning activities to achieve the desired learning outcomes.

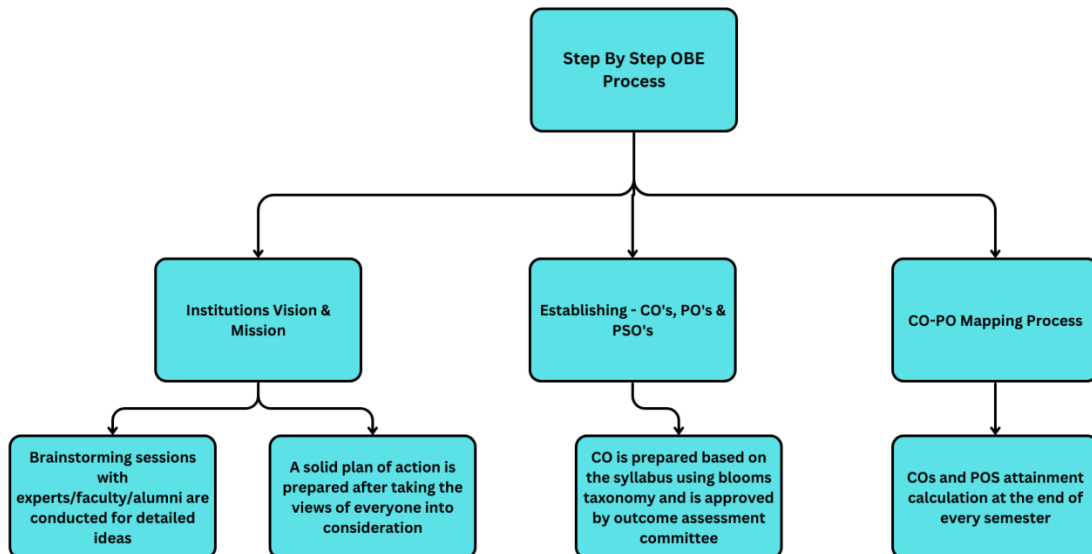


Fig (1): OBE Process

3. BLOOM'S TAXONOMY

Bloom's Taxonomy was created by Benjamin Bloom in 1956, published as a kind of classification of learning outcomes and objectives that have, in the more than half-century since, been used for everything from framing digital tasks and evaluating apps to writing questions and assessments. The original sequence of cognitive skills was Knowledge, Comprehension, Application, Analysis, Synthesis, and Evaluation. The framework was revised in 2001 by Lorin Anderson and David Krathwohl, yielding the revised Bloom's Taxonomy. The most significant change was the removal of 'Synthesis' and the addition of 'Creation' as the highest-level of Bloom's Taxonomy. And being at the highest level, the implication is that it's the most complex or demanding cognitive skill—or at least represents a kind of pinnacle for cognitive tasks

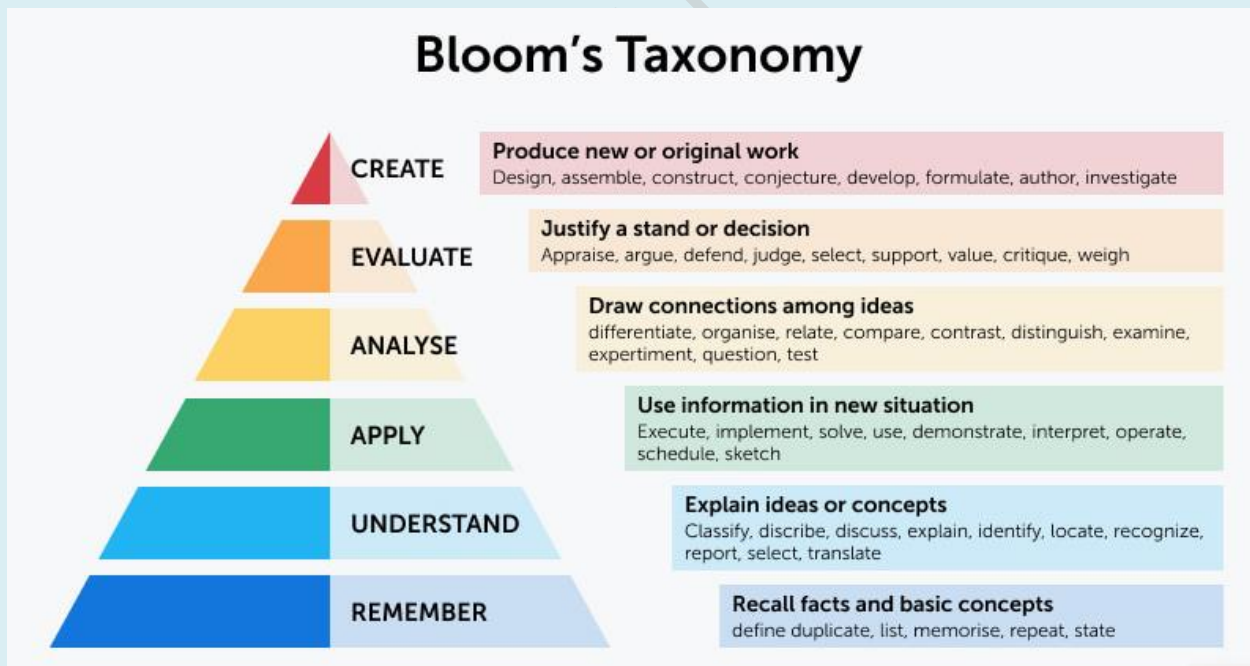


Fig (2): Bloom's Taxonomy

4. STATEMENT OF PO, PSO AND CO

Programme Outcomes

POs are statements about the knowledge and skills the graduate/post graduate of an institution should have. POs deal with the general aspect of Graduation/Post Graduation for a particular programme, and the competencies and expertise a graduate/post graduate will possess after completion of the program. These are broad and cover a wider area than of COs.

Programme Specific Outcomes

Programme Specific Outcomes (PSOs) are specifically defined outcomes of the programme which the graduates have to acquire by the end of the programme.

Course Outcome

They are the resultant knowledge skills the student acquires at the end of a course. It defines the cognitive processes a course provides. It is the statement which indicates, that a student can do after the successful completion of a course. Every Course leads to some Course Outcomes. The CO statements are defined by considering the course content covered in each module of a course. For every course, teacher may prepare six or less course outcomes. The keywords used to define COs are based on Bloom's Taxonomy

5. PROGRAMME OUTCOME FOR UG AND PG

5.1. FOR UG -BA, BCOM, BSC, BBA, BCA

On completion of a UG Programme from Christ Nagar College, students should be able to demonstrate the **programme outcomes** listed below:

PO1: PROFESSIONALISM AND ETHICS- Demonstrate accountability and professionalism that is rooted in ethical, altruistic, moral, and humanistic principles.

PO2: LEADERSHIP AND SOCIAL ACUITY - Capable of taking responsibilities as a leader and demonstrate responsiveness to the regional and national environments developing abilities to manage challenges for nation building.

PO3: DIGITAL COMPETANCE: Able to use technology and skills to process information and data for the benefit of the society.

PO4: COMMUNICATION AND TEAM WORK- Interact effectively with stakeholders, fostering an environment of team work, mutual respect and shared decision making skills.

PO5: CRITICAL THINKING - Foster in students an inquisitive mind to analyze and develop capacity to become an active learner through critical thinking.

5.2 FOR PG-MCOM, MA, MSC

On completion of a PG Programme from Christ Nagar College, students should be able to demonstrate the **programme outcomes** listed below:

PO1: RESEARCH AND QUALITY: Nurture research mindset through quality in thoughts and scientific temperament. Utilize systems to continuously improve the quality and standards.

PO2: BEST PRACTICES: Inculcate a mindset to seamlessly adopt innovation and entrepreneurship, assimilating best-practices for global excellence.

PO3: LIFELONG LEARNING- Develop skills and attitude for life-long learning and pursue self-directed learning for refining professional expertise.

PO4: VISIONARY AND MISSION DRIVEN: Inspire stakeholders to pursue bigger visions through hard work, perseverance and managerial skills.

PO5: GLOBAL OUTLOOK AND SOLUTIONS: Greater understanding of global problems to ideate and implement solutions.

6. PROGRAMME SPECIFIC OUTCOMES (PSO)

BA ENGLISH LANGUAGE AND LITERATURE

PSO1: Identify the divergent and plural voices that come in to the making of the corpus of literary studies (**Understand**)

PSO2: Develop the requirements of the language use in a globalized context (**Apply**)

PSO3: Analyze and interpret the literary works in light of the literary theories and various philosophies (**Analyze**)

BCOM COMMERCE WITH COMPUTER APPLICATION

PSO1: Solve problems using the theoretical and conceptual understanding in Commerce, Business Management, Accounting, Taxation and Computer Application by applying the technical and mathematical skills (**Apply**)

PSO2: Develop a sense of professional knowledge and skill in different areas of communication, entrepreneurship, programming and accounting (**Apply**)

PSO3: Assess different business phenomena and environment while engaging in research to nurture social responsibility and environmental consciousness (**Evaluate**)

BCOM COMMERCE AND TAX PROCEDURE AND PRACTICE

PSO1: Solve problems using the basic understanding of laws in Commerce and Taxation and by applying the accounting, technical and mathematical skills (**Apply**)

PSO2: Develop skills in different areas of communication, entrepreneurship and management to work competently and productively in groups, exercising inter personal skills. (**Apply**)

PSO3: Assess different business phenomena and environment while engaging in research to nurture social responsibility and environmental consciousness (**Evaluate**)

BSC MATHEMATICS

PSO1: Apply mathematical concepts in the field of differential and integral calculus, algebra, analysis, number theory and differential equations, establish mathematical expressions using software and interpret statistical and physical field using mathematical concepts. **(Apply)**

PSO2: Integrate edified communication skills and critical thinking to examine and solve various societal problems and develop skills in the field of document making, mathematical computation, and visualization using software. **(Create)**

PSO3: Develop the knowledge in statistical and physical field to enhance mathematical applications career prospects and adapt changing scientific environment, uphold scientific integrity, managing environmental emergencies and objectivity in professional endeavours. **(Create)**

BSC STATISTICS

PSO1: Develop communication skills to convey the concepts and applications of Statistics for the holistic development of society upholding the principles of sustainable development and environmental consciousness. **(Apply)**

PSO2: Apply statistical techniques for collection, presentation, analysis and interpretations of data and draw valid inferences, Develop programming skill to analyze data using statistical software. **(Apply)**

PSO3: Describe Statistical methods applied to study Demographic, Industrial and Economic patterns and behavior and also integrate theoretical knowledge and skills to develop new ideas in the field of research and real life situations. **(Understand)**

BA JOURNALISM AND MASS COMMUNICATION

PSO1: Adapt different practices in Communication and Journalism (**Create**)

PSO2: Examine the theoretical underpinnings of the media practices (**Remember**)

PSO3: Produce content for different media platforms (**Apply**)

BBA

PSO1: Solve problems using the basic understanding of various principles and functional areas of management for developing new findings through research. (**Apply**)

PSO2: Apply entrepreneurial and managerial skills as well as knowledge regarding banking, information systems, legal aspects of business & e-business for effective business management. (**Apply**)

PSO3: Develop an organization by knowing the business environment and be socially, ethically, and ecologically mindful. Improve the business communication and soft skills to advance to the management and administrative levels. Develop the business knowledge, analytical abilities, and financial literacy required to understand the dynamic nature of the business organization. (**Apply**)

BCA

PSO1: Explain the concepts and architecture of computer systems; employ the aspects of environmental consciousness and social intervention (**Understand**).

PSO2: Apply mathematical tools and algorithmic techniques to solve computational problems (**Apply**).

PSO3: Develop software applications using the latest programming languages and technology in the emerging areas of computer applications and develop soft skills and analytical skills to compose innovative solutions and entrepreneurial ventures (**Apply**).

BSC PHYSICS & COMPUTER APPLICATIONS

PSO 1: Providing deep knowledge in Physics so that students are able to analyse and apply the knowledge of Physics in an innovative, dynamic and challenging environment for design and development of new products (**Understand, Apply**).

PSO 2: Making students capable to solve practical, design and analysis problems to complete the challenge to fabricate, test and develop the products with more innovative technologies (**Analyse, Understand and Apply**)

PSO 3: Design solutions for complex Physics problems and design systems that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations (**Understand and apply**).

MA ENGLISH LANGUAGE & LITERATURE

PSO1: Observe the relationship between art and life to comprehend the social, emotional, psychological, political and cultural features of literary texts. (**Understand**)

PSO2: Summarize the basic pedagogical principles and praxis relating to the teaching of English language and literature (**Evaluate**)

PSO3: Develop the critical skills and theoretical knowledge necessary to work towards a research degree (**Create**) **PSO6: Construct** a research plan to pursue further studies in areas of intent. (**Creating**)

MCOM (ELECTIVE-FINANCE AND ACCOUNTING)

PSO1: Apply theoretical knowledge for career growth (**Apply**)

PSO2: Solve social problems using research techniques and tools (**Create**)

PSO3: Choose the appropriate application of various laws including cyber law, industrial law, tax laws and economic laws in different situations. (**Evaluate**)

MSC COMPUTER SCIENCE

PSO1: Develop Advanced Knowledge in Data structures, Computer Networks, Data Base Management Systems, Data Mining, Operating Systems, Information Security, Compiler Design, Distributed Systems and other related courses.

PSO2: Use Mathematical and Optimization Techniques, Cloud Computing and there by facilitating the students to develop computational problems. (**Apply**)

PSO3: Implement experiment for solving real life problems using advanced programming languages and prepare them for doing research. (**Apply**)

7. COURSE OUTCOMES

DEPARTMENT OF COMMERCE

BCom Commerce with Computer Applications

SEMESTER 1

COURSE CODE	COURSE NAME	COURSE OUTCOME	
EN 1111.2	LANGUAGE SKILLS	CO1	Define the tenets of Soft skills and the four fold skills. (Remember)
		CO2	Explain elements of basic communication through micro and macro skills (Understand)
		CO3	Develop conversational skills through dialogue writings. (Apply)
		CO4	Analyse the students' ability as a critical reader and writer. (Analyze)
		CO5	Create expertise in business and professional writing to endorse employability. (Create)
CC1141	INTRODUCTION TO INFORMATION TECHNOLOGY	CO1	Explain the basic concepts of Information Technology. (Understand)
		CO2	Extend knowledge on different units of computer. (Understand)
		CO3	Discuss the various types of hardware and software of computer. (Understand)
		CO4	Identify the modern digital technologies like social Medias, digital banking, mobile operating system etc. (Understand)
		CO5	Distinguish between the different number systems and conversion from one system to another (Analyze)
CC1121	METHODOLOGY AND PERSPECTIVES OF BUSINESS EDUCATION	CO1	Explain the concept of economic system, business entities and economic sectors. (Understand)
		CO2	Discuss the role of business in Economic Development (Understand)
		CO3	Explain the role of trained manpower and technology in promoting ethical practices

			in business (Understand).
		CO4	Observe the concept of Social ethics, social responsibility and social service (Remember)
		CO5	Express holistic, comprehensive and integrated perspective to business education (Understand)
CC1142	ENVIRONMENTAL STUDIES	CO1	Explain the basic concepts and emerging issues about the environment (Understand).
		CO2	Discuss the role of an individual in the protection of the biodiversity and the environment (Understand).
		CO3	Determine the causes of pollution and solutions to deal with it (Apply).
		CO4	Propose solutions to maintain sustainable development (Create)
		CO5	Construct an idea about population explosion, its impact and Human rights in our economy(Create)
CO 1142	MANAGEMENT CONCEPTS AND THOUGHT	CO1	Describe different dimensions of management and its process (Remember)
		CO2	Compare different leadership styles and theories (Understand)
		CO3	Compare different motivation theories applying in Business (Understand)
		CO4	Describe communication models in Business (Understand)
		CO5	Explain various contemporary techniques of management like TQM, change management and learning organization (Understand)
CO1131	MANAGERIAL ECONOMICS	CO1	Explain the basic concepts related to the application of Economic theories, tools and methodologies in business decision making. (Understand)
		CO2	Describe the types, elasticity and methods of forecasting the demand.(Understand)
		CO3	Discuss the theoretical concepts of production and business cycle (Understand)

		CO4	Differentiate the various forms of market and price determination under various market conditions (Understand)
		CO5	Determine the causes of business cycle(Apply)

SEMESTER 2

COURSE CODE	COURSE NAME	COURSE OUTCOME	
EN1211.4	ENGLISH FOR CAREER	CO1	Practice the vocabulary essential for professional communication. (Apply)
		CO2	Construct sentences without errors using remedial grammar. (Create)
		CO3	Analyze passages for comprehension using logical and critical thinking. (Analyze)
		CO4	Recall the grammatical and syntactical rules by solving remedial exercises (Remember)
CC1241	FINANCIAL MANAGEMENT	CO1	Discuss the meaning, scope and key decisions of financial management. (Understand)
		CO2	Explain the concept of cost of capital, capital structure and theories of capital structure. (Understand)
		CO3	Describe the capital budgeting decision and management of working capital. (Understand)
		CO4	Explain the dividend policies and theories of dividend policies. (Understand)
		CO5	Compute the working capital requirement of an organisation(Apply)
CO 1221	INFORMATICS AND CYBER LAWS	CO1	Review the basic concepts and fundamental knowledge in the field of informatics (Understand)

		CO2	Create awareness about the nature of the emerging digital knowledge society and the impact of informatics on business decisions. (Create)
		CO3	Create awareness about the cyber world and cyber regulations.(Create)
		CO4	Create awareness about the Cyber Laws.(Create)
		CO5	Create awareness about network and Security.(Create)
CC1242	FINANCIAL ACCOUNTING	CO1	Compute the financial position of a sole trader. (APPLY)
		CO2	Analyze the books of account of hire purchasing system(Analyze)
		CO3	Evaluate the accounts of voyage, package and container system(Analyze)
		CO4	Appraise investment accounts (Evaluate)
		CO5	Analyze claims to be lodged in case of insurance claim (Analyze)
CC1243	BUSINESS REGULATORY FRAMEWORK	CO1	Describe the basic concepts, terms and provisions of Business Law.(Remember)
		CO2	Identify the essential elements of a contract.(Understand)
		CO3	Distinguish between bailment and pledge and idemnity and guarantee.(Analyze)
		CO4	Prepare a model of Right to Information application for obtaining information under RTI Act ,2005.(Create)
		CO5	Explain the various IPR related laws prevailing in our country (Apply)

CC1231	BUSINESS MATHEMATICS	CO1	Illustrate fractions, mixed numbers, permutations, combinations (Apply)
		CO2	Practice Matrices, determinants, linear and quadratic equations, differentiation and integration and their operations. (Apply)
		CO3	Explain set theory, bar and pie diagram, Cramer's rule, extrapolation and interpolation with line graphs. (Apply)
		CO4	Understand Mathematical application in Business (Understand)
		CO5	Prepare Financial Statement Analysis. (Apply)

SEMESTER 3

COURSE CODE	COURSE NAME	COURSE OUTCOME	
CC 1341	PROJECT FINANCE	CO1	Formulate the patterns of project financing (Create)
		CO2	Record the financial techniques for project appraisal (Understand)
		CO3	Estimate the risk associated in the project implementation (Analyze)
		CO4	Formulate the patterns of project financing (Create)
		CO5	Estimate the issues faced in global project (Analyze)
CC 1342	ENTREPRENEURSHIP DEVELOPMENT	CO1	Explain the concept of entrepreneur, entrepreneurship and also show the fundamental aspects of entrepreneurship (Understand)
		CO2	Explain the latest programmes of Government in promoting small and medium industries (Apply)
		CO3	Prepare a project report and basic

			principles to create a good project report (Apply)
		CO4	Organize the knowledge to start own new ventures (Analyze)
		CO5	Identify the procedure associated with initiating an entrepreneurial activity (Understand)
CC 1343	ADVANCED FINANCIAL ACCOUNTING	CO1	Prepare accounts related to dissolution of partnership firms. (Apply)
		CO2	Solve the problems in consignment accounts. (Apply)
		CO3	Prepare accounts of joint venture business. (Apply)
		CO4	Illustrate the system of accounting for different branches. (Apply)
		CO5	Assess and illustrate the accounting for departments(Apply)
CC 1344	COMPANY ADMINISTRATION	CO1	Examine the salient provisions of Indian Companies Act 2013 (Remember)
		CO2	Analyze the functions and responsibilities of Board of Directors (Analyze)
		CO3	Describe the affairs of the company and winding up procedure (Understand)
		CO4	Prepare a report compiling all the essential documents needed at various stages of the formation of a Public Limited Company (Create)
		CO5	Compare the provisions of Company Act 1956 and 2013 (Evaluate)
CC1345	COMPUTER APPLICATION FOR PUBLICATION	CO1	Explain the functional knowledge in the field of free software (Understand)
		CO2	Illustrate the various operations in Microsoft Word (Apply)
		CO3	Develop practical skills on advanced uses of Microsoft Word (Apply)
		CO4	Design pages in Desktop Publishing

			Software (Create)
		CO5	Create business presentation using Microsoft Powerpoint (Create)
CC 1331	E BUSINESS	CO1	Explain the basic concepts of E-Business and E-Commerce and also their types and models. (Understand)
		CO2	Describe about some of the innovative E Business Systems. (Remember)
		CO3	Create an idea about various areas of E business applications and E Governance. (Create)
		CO 4	Describe about various E-Business initiatives taken from the side of government (Understand)
		CO 5	Develop knowledge on the basics of starting online business (Create)

SEMESTER 4

COURSE CODE	COURSE NAME	COURSE OUTCOME	
CC 1441	FINANCIAL SERVICES IN INDIA	CO1	Create an idea about financial services in India (Create)
		CO2	Analyze functioning of fund based and fee financial services in India (Analyze)
		CO3	Discover various the pros and cons of financial services presently available in India (Apply)
		CO4	Develop a sense among using Financial Services in real life situations (Apply)
		CO5	Develop the knowledge about various financial services available for starting an functioning of a business (Create)
CC 1444	CORPORATE ACCOUNTING	CO1	Create an idea about the international accounting principles and procedures (Create)
		CO2	Analyze the accounting procedures followed by different corporate entities in India (Analyze)
		CO3	Explain the accounting procedures and different books of accounts maintained by different corporate entities in India (Analyze)

		CO4	Combine the theory and applications level to understand the procedures practice and principles in the branch of accounting (Apply)
		CO5	Understand various accounting standards and its applications(Apply)
CO1442-	BANKING AND INSURANCE	CO1	Discuss the functions of commercial Banks and Central Banks . (Understand)
		CO2	Explain Banking practices and Banker customer relationship (Apply)
		CO3	Describe Innovations and reforms in banking sector (Understand)
		CO4	Explain the basics of Insurance Business. (Apply)
		CO5	Evaluate Insurance claims and regulations. (Analyze)
CC 1431 -	BUSINESS STATISTICS	CO1	Understand statistical techniques those are applicable to business.(Understand)
		CO2	Persuade students in applying statistical techniques in business problem solving (Evaluate)
		CO3	Evaluate Correlation and regression analysis (Analyze)
		CO4	Calculate the indices to measure price and quantity changes over period of time (Analyze)
		CO5	Practice time series in an informative way, both graphically and with summary statistics (Apply)
CC 1442 -	INDIAN FINANCIAL MARKET	CO1	Describe the functioning of Indian Financial Market in general and Capital market operations in particular.(Understand)
		CO2	Explain different types of dealings in Indian financial market (Understand)
		CO3	Explain different methods of hedging risk using

			derivative instruments (Understand)
		CO4	Explain the regulations of Indian Financial Market (Understand)
		CO5	Develop an idea of working of the securities markets and its components (Create)
CC 1445	SOFTWARE FOR DATA MANAGEMENT	CO1	Explain the basics of Software for Data Management (Understand)
		CO2	Prepare the students to meet the demands of the industry. (Apply)
		CO3	Develop practical skills on advanced uses of Microsoft Excel (Apply)
		CO4	Develop theoretical and technical expertise in statistical software SPSS (Apply)
		CO5	Create databases and queries using Microsoft Access (Create)

SEMESTER 5

COURSE CODE	COURSE NAME	COURSE OUTCOME	
CC 1541	FUNDAMENTALS OF INCOME TAX	CO1	Discuss the Basic Concepts and Definitions of Income Tax Act. (Understand)
		CO2	Describe the provisions relating to Computation of Income from Salaries. (Understand)
		CO3	Explain the computation of Income from House Property. (Apply)
		CO4	Illustrate computation of Profits and Gains of Business or Profession, Capital Gains and Income from Other Sources (Analyze)
		CO5	Explain the Computation of Tax Liability of

			Individual Assessee (Analyze)
CC 1542	COST ACCOUNTING	CO1	Make students explain various cost and cost accounting concepts (Analyze)
		CO2	Assess the cost of various elements of cost such as Material, Labour and Overheads (Evaluate)
		CO3	Differentiate Cost and Financial accounting systems (Analyze)
		CO4	Prepare Cost Sheet and Reconciliation Statement (Create)
		CO5	Examine the application of cost accounting, financial accounting and management accounting in business organisations. (Apply)
CC 1543	MARKETING MANAGEMENT	CO1	Recall the knowledge of various concepts of modern marketing management (Remember)
		CO2	Explain the contemporary marketing process in the emerging business scenario (Understand)
		CO3	Describe various aspects of application of modern marketing techniques for obtaining a competitive advantages in business organisation (Understand)
		CO4	Describe various aspects of consumer behaviour (Understand)
		CO5	Apply advertising techniques in marketing (Apply)
CC 1551	PRINCIPLES OF MANAGEMENT	CO1	Discuss the fundamentals of management and the importance of related concepts. (Understand)
		CO2	Explain in detail about the role of principles of management in the decision making process of an organisation. (Understand)
		CO3	Describe the significance of the management process of planning, organising, staffing, directing & controlling. (Understand)
CC 1544	WEB DESIGNING AND PRODUCTION FOR BUSINESS	CO1	Describe the procedure of designing and developing a web site (Understand).

		CO2	Explain the basic functional knowledge of tags in Web designing(Understand)
		CO3	Determine the various advanced features in web designing(Apply).
		CO4	Explain the concepts of CSS and XML(Understand).
		CO5	Design a website using the basic and advanced tags in HTML with the help of CSS and XML (Create)
CC 1545	WEB DESIGNING AND PRODUCTION FOR BUSINESS-LAB	CO1	Develop practical skill to design a simple web page(Create).
		CO2	Design a complete web site using different tags in HTML. (Create)
		CO3	Apply CSS in web pages in an effective manner (Apply)
		CO4	Create a blog using XML (Create)
		CO5	Design a website using XML and XSL (Create)

SEMESTER 6

COURSE CODE	COURSE NAME	COURSE OUTCOME	
CC 1642	APPLIED COSTING	CO1	Recognise important terms and concepts of Applied Costing (Remember)
		CO2	Distinguish various costing methods and techniques (Evaluate)
		CO3	Prepare Cost statements as per various systems of cost accounting (Apply)
		CO4	Solve problems associated with various Costing methods and techniques (Create)
		CO5	Justify the application of various methods and techniques in a situation (Create)
CC 1644	COMPUTERISED ACCOUNTING	CO1	Create the skills in the application of accounting packages (Create)

		CO2	Explain the computer applications in the field of Accounting (Understand)
		CO3	Develop practical knowledge in the application of Tally Package (Apply)
		CO4	Explain about the various reports that can be generated with the help of Tally software. (Analyze)
		CO5	Determine the various uses of Computer Softwares in the field of accounting (Apply)
CC 1645	COMPUTERISED ACCOUNTING LAB	CO1	Develop the skills in the application of Tally in recording accounting transactions (Apply)
		CO2	Explain about the treatment of inventory related informations in tally software and generating stock summary(Understand)
		CO3	Create a knowledge in the preparation of Bank Reconciliation statements in Tally.(Create)
		CO4	Prepare the financial statements of a sole trading business concern in Tally (Create)
		CO5	Record the GST, Budgeting and stock related informations in accounting by using Tally (Apply)
CC 1641	AUDITING	CO1	Discuss the various types of audit, Audit Process and documentation (Understand)
		CO2	Explain the Vouching and Verification. (Apply)
		CO3	Explain the provisions in the Companies Act regarding Auditors of Joint Stock Companies. (Understand)
		CO4	Describe the investigation and types of investigation.(Understand)
		CO5	Compare verification and valuation of assets in an organisation(Apply)
CC 1643	MANAGEMENT ACCOUNTING	CO1	Recognise important terms and concepts of Management Accounting(Remember)
		CO2	Develop practical knowledge in the preparation of various budgets (Apply)
		CO3	Prepare Fund Flow Statement as per systems of management accounting (Apply)

		CO4	Prepare Cash Flow Statement as per systems of management accounting (Apply)
		CO5	Solve problems associated with various Management accounting techniques (Create)
CC 1651.2	STRATEGIC MANAGEMENT	CO1	Give basic understanding about the concepts related to strategic management. (Understand)
		CO2	Appraise the students with the managerial tasks associated with implementing corporate strategy. (Evaluate)
		CO3	Facilitate the students to use different strategies for organizational appraisal and environmental scanning (Create)
		CO4	Apply SWOT and TOWS analysis to identify the organizational strength, weakness, opportunities and threats of the organization (Apply)
		CO5	Analyze different case studies in national and international context. (Analyze)

8. CO-PO-PSO MAPPING

After framing the POs, PSOs and CO statements, each CO is mapped with PO/PSO of the programme. The faculty advisor reviews the CO statements and the CO-PO mapping which has been done by course coordinator. The faculty advisor consolidates the documentation of the CO attainment level of all the courses in a semester. These details are handed over to the Head of the department in order to evaluate PO attainment of the individual course at the end of the programme and a report is submitted to the Internal Quality Assurance Cell (IQAC). All these works is done under the guidance of IQAC. For a course we map the COs to POs/PSOs through the CO-PO/PSO matrix. The various correlation levels are:

1: LOW

2: MODERATE

3: HIGH

Process Involved In CO-PO/PSO Mapping

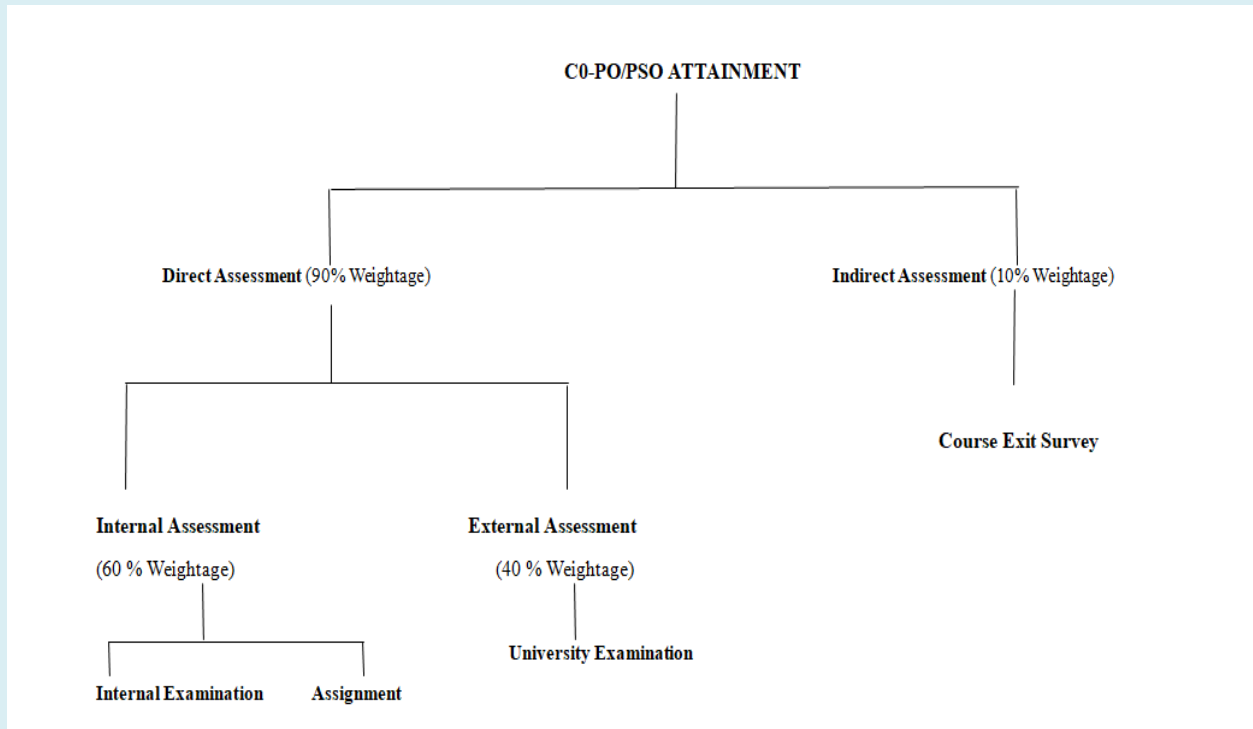


Fig (3): CO-PO/PSO Mapping

Direct Assessment

Course Outcome is evaluated based on the performance of students in internal assessments and in university examination of a course. The benchmark is set on the percentage of marks secured by the students for respective course. The assessment is done through 3 levels as L1 (Low), L2 (Medium), L3 (High) for each semester result. The levels are also applicable for Internal Exam, and University Examination. Internal Assessment is based on Internal Examination and Assignment. Course attainment is calculated in percentage as per the levels given below

Level 1 : $\geq 50\%$ and $< 60\%$

Level 2 : $\geq 60\%$ and $< 70\%$

Level 3 : $\geq 70\%$

Indirect Assessment

A Course Exit Survey is conducted for each course. Based on each course outcome survey questions were prepared and feedback is collected from the students. 10 % weightage is given for indirect assessment.

OVERALL ATTAINMENT = 90% of Direct assessment + 10 % of Indirect Assessment

Steps Involved In CO-PO/PSO Mapping

Step 1: Set Course Outcome (CO) for each course by the Course Coordinator.

Step 2: CO-PO/PSO mapping for each course is carried out by course coordinators and is reviewed by the faculty advisor and head of the department.

Step 3: Threshold for University Examination and Internal Assessment is decided by the Course Coordinator.

Step 4: Three levels are set (3, 2, 1) in accordance with the percentage of students attaining threshold.

Step 5: Construct CO-PO/PSO mapping matrix.

Step 6: Weighted average template for each COs is generated.

Step 7: Direct attainment is assessed for each COs by giving 40% weightage to University Examination and 60% weightage to Internal Assessment which include Internal Examination and Assignment.

Step 8: Implement the three levels.

Step-9: Obtain CO attainment table through Indirect Assessment method by conducting a Course Exit Survey)

Step-10: Obtain CO attainment by giving 90% weightage to Direct Attainment and 10% weightage to Indirect Assessment.

Step-11: Obtain PO/PSO attainment table

Step 12: Submit CO-PO/PSO attainment report to Faculty Advisor.

Step 13: After evaluating the CO-PO/PSO attainment the curriculum gap is identified based on the minimum threshold set for each course.

Step 14: Submit CO-PO/PSO attainment along with the gap analysis report and recommendations for the actions to be taken to the Head of the department.

Step-14- Head of the Department would consolidate the CO and PO attainment of the programme with all the identified gaps and submit report to IQAC.

Step-15- IQAC will list out the steps to be taken to bridge the curricular gap. Content beyond the syllabus may be delivered to the students through remedial teaching and by providing online videos courses, add-on courses etc.

Sample of CO-PO/PSO Mapping

PO ATTAINMENT USING CO(DIRECT METHOD)								
CO PO MAPPING								
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3
CO1	1			2			3	
CO2		1				3		
CO3		2	2					3
CO4				1	2		3	1
CO5	1			2		1	2	
WT.AVG	1	1.5	2	1.7	2	2	2.7	2
				Overall Mapping of Subject				1.9

Sample of CO-PO/PSO Attainment

CO -PO-PSO ATTAINMENT								
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3
CO1	1			2			3	
CO2		1				3		
CO3		2	2					3
CO4				1	2		3	1
CO5	1			2		1	2	
AVG	1	1.5	2	1.7	2	2	2.7	2
				OVERALL ATTAINMENT				1.9

Mapping of CO-PO/PSO

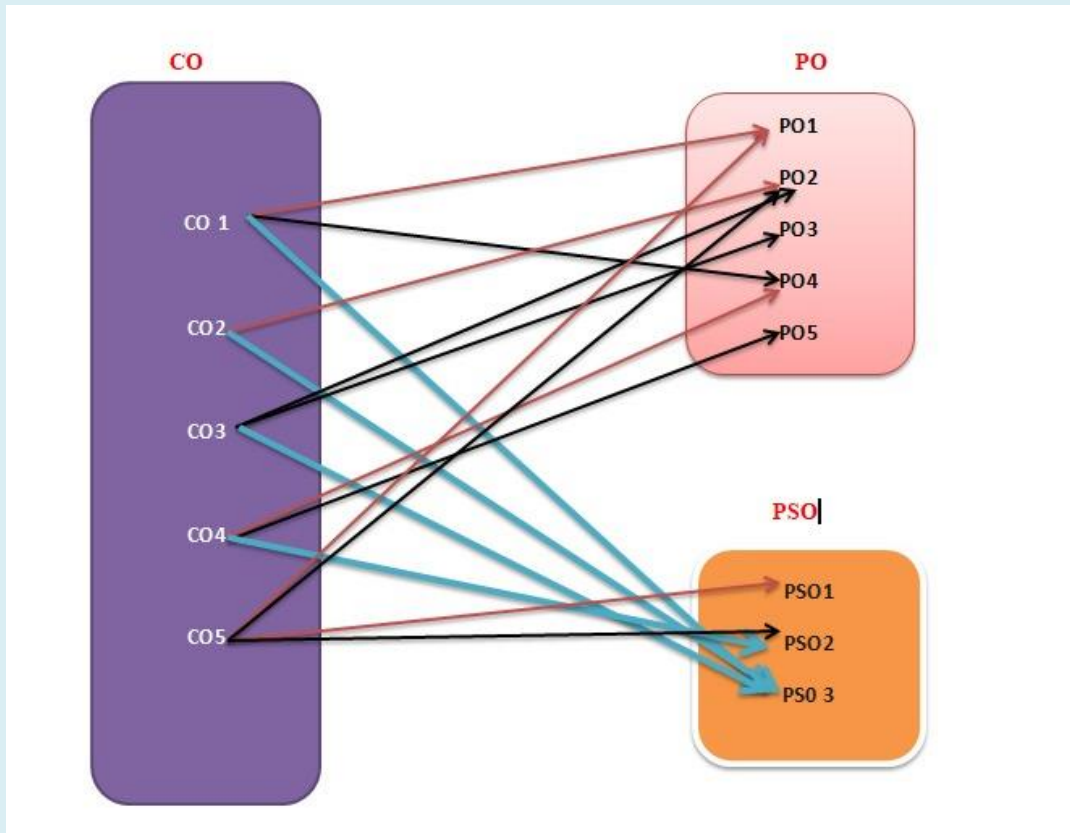


Fig (4):CO-PO/PSO Mapping

9. SAMPLE CALCULATION OF CO ATTAINMENT

CHRIST NAGAR COLLEGE, MARANALLOOR, THIRUVANANTHAPURAM																									
ATTAINMENT CRITERIA		>=70	>=60 and <70	>=50 and <60	Threshold % for University Exam					70															
		Level 3	Level 2	Level 1						CO Passing marks out of 100					80										
All fields with RED title should be filled. The Internal marks (out of 40), Assignment marks (out of 20) and University Exam marks (out of 80) should be filled.																									
Faculty Name:		Ms Remya Nath P			PROG. NAME		B.Sc Mathematics			COURSE NAME		DESCRIPTIVE STATISTICS													
PROGRAMME		BSc.		YEAR		I		SEM		1		COURSE CODE		ST 1131.1	BATCH		2019-2022								
Attainment for Internal & University Examination																									
S. No.	Reg. No.	Name of Student	Internal Exam					Assignment					Total (40)	ESE (20)	% (20)	% (20)	% (20)	% (20)	% (20)	% (20)					
			Q1	Q2	Q3	Q4	Q5	Q1	Q2	Q3	Q4	Q5													
			CO1	CO2	CO3	CO4	CO5	CO1	CO2	CO3	CO4	CO5													
CO WISE MAXIMUM MARKS		8	8	8	8	8	4	4	4	4	4	4	4	4	4	4	4	4	4						
1	22019825001	Adithya G P	8.00	8.00	7.00	7.00	6.00	36	4.00	4.00	4.00	4.00	4.00	20	67	100.00	100.00	91.67	91.67	83.33	93.33				
2	22019825002	Anamika Gopan S	7.00	7.00	7.00	6.00	6.00	33	4.00	4.00	4.00	4.00	4.00	20	62	91.67	91.67	91.67	83.33	83.33	88.33				
2	22019825003	Anjali B	6.00	5.00	5.00	5.00	4.00	25	4.00	4.00	4.00	4.00	4.00	20	39	83.33	75.00	75.00	75.00	66.67	75.00				
4	22019825004	Darsha Nair	6.00	6.00	6.00	6.00	5.00	29	4.00	4.00	4.00	4.00	4.00	20	56	83.33	83.33	83.33	83.33	75.00	81.67				
5	22019825005	Dhanya.R.A	8.00	7.00	7.00	7.00	6.00	35	4.00	4.00	4.00	4.00	4.00	20	72	100.00	91.67	91.67	91.67	83.33	91.67				
6	22019825006	Hashima.D.S	7.00	7.00	6.00	6.00	6.00	32	4.00	4.00	4.00	4.00	4.00	20	38	91.67	91.67	83.33	83.33	83.33	86.67				
7	22019825008	Meera C Dev	8.00	8.00	8.00	8.00	8.00	40	4.00	4.00	4.00	4.00	4.00	20	61	100.00	100.00	100.00	100.00	100.00	100.00				
8	22019825009	Merlin Robin	7.00	7.00	6.00	6.00	6.00	32	4.00	4.00	4.00	4.00	4.00	20	69	91.67	91.67	83.33	83.33	83.33	86.67				
9	22019825010	RAJIL R. L	7.00	7.00	7.00	6.00	7.00	34	4.00	4.00	4.00	4.00	4.00	20	56	91.67	91.67	91.67	83.33	91.67	90.00				
10	22019825011	Sreeshari T P	5.00	5.00	5.00	5.00	4.00	24	4.00	4.00	4.00	4.00	4.00	20	28	75.00	75.00	75.00	75.00	66.67	73.33				
11	22019825013	Vishnupriya. O.B	8.00	8.00	8.00	8.00	8.00	40	4.00	4.00	4.00	4.00	4.00	20	64	100.00	100.00	100.00	100.00	100.00	100.00				
12	22019825014	Aishwarya.S.S	8.00	8.00	8.00	8.00	8.00	40	4.00	4.00	4.00	4.00	4.00	20	69	100.00	100.00	100.00	100.00	100.00	100.00				
13	22019825015	Anu Johnson	8.00	8.00	8.00	8.00	8.00	40	4.00	4.00	4.00	4.00	4.00	20	75	100.00	100.00	100.00	100.00	100.00	100.00				
14	22019825016	Arun J S	8.00	7.00	7.00	7.00	6.00	35	4.00	4.00	4.00	4.00	4.00	20	48	100.00	91.67	91.67	91.67	83.33	91.67				
15	22019825017	Aruna.M.K	8.00	8.00	7.00	7.00	6.00	36	4.00	4.00	4.00	4.00	4.00	20	53	100.00	100.00	91.67	91.67	83.33	93.33				
16	22019825018	ARYA R S	8.00	8.00	8.00	8.00	8.00	40	4.00	4.00	4.00	4.00	4.00	20	76	100.00	100.00	100.00	100.00	100.00	100.00				
17	22019825019	Arya V S	8.00	7.00	7.00	7.00	6.00	35	4.00	4.00	4.00	4.00	4.00	20	51	100.00	91.67	91.67	91.67	83.33	91.67				
18	22019825020	Balagopal R S	8.00	8.00	8.00	8.00	8.00	40	4.00	4.00	4.00	4.00	4.00	20	70	100.00	100.00	100.00	100.00	100.00	100.00				
19	22019825021	Bhavani S	8.00	8.00	8.00	8.00	8.00	40	4.00	4.00	4.00	4.00	4.00	20	67	100.00	100.00	100.00	100.00	100.00	100.00				
20	22019825022	Gopika P.G	8.00	8.00	8.00	8.00	8.00	40	4.00	4.00	4.00	4.00	4.00	20	65	100.00	100.00	100.00	100.00	100.00	100.00				
21	22019825023	Haris Mohammed S.H.	7.00	6.00	6.00	6.00	5.00	30	4.00	4.00	4.00	4.00	4.00	20	56	91.67	83.33	83.33	83.33	75.00	83.33				
22	22019825024	JOUIN BS	7.00	7.00	7.00	6.00	7.00	34	4.00	4.00	4.00	4.00	4.00	20	28	91.67	91.67	91.67	83.33	91.67	90.00				
23	22019825025	Lekshmi.L.M.	8.00	8.00	8.00	7.00	8.00	39	4.00	4.00	4.00	4.00	4.00	20	65	100.00	100.00	100.00	100.00	100.00	98.33				
24	22019825026	Navaneeth Krishnan B I	5.00	5.00	5.00	4.00	4.00	23	4.00	4.00	4.00	3.00	3.00	18	33	75.00	75.00	75.00	58.33	58.33	68.33				
25	22019825028	Sona Vimal	7.00	7.00	7.00	6.00	6.00	33	4.00	4.00	4.00	4.00	4.00	20	54	91.67	91.67	91.67	83.33	83.33	88.33				
26	22019825029	Soorya Jose A	8.00	8.00	7.00	7.00	6.00	36	4.00	4.00	4.00	4.00	4.00	20	64	100.00	100.00	91.67	91.67	83.33	93.33				
OVERALL ATTAINMENT										ATTAINMENT TABLE															
1	Attainment through internal assessment:									3.00	ABSENTEES									0	0	0	0	0	0
2	Attainment through university examination:									2.00	NO. OF STUDENTS ATTEMPTED									28	28	28	28	28	28
3	Weightage given to the Internal examination (60%):									1.80	NO. OF STUDENTS SECURED MARKS > THRESHOLD MARKS									17	24	20	20	20	21
4	Weightage given to the university examination (40%):									0.80	% OF STUDENTS SECURED MARKS > THRESHOLD MARKS									66.33	92.21	88.48	88.48	88.48	89.77
5	Final attainment level of the course (By Direct Assessment):									2.80	ATTAINMENT (3 ≥ 70%, 2 ≥ 60%, 1 ≥ 50%)									2.00	3.00	3.00	3.00	3.00	3.00
6	Attainment through Indirect Assessment									3.00	Final attainment level CO (By Direct Assessment):									2.80	2.80	2.80	2.80	2.80	2.80
7	Overall Attainment(Direct&Indirect)									2.8	Final attainment level CO (By Direct & Indirect Assessment):									2.84	2.84	2.84	2.84	2.84	2.84

Sample of Course –Exit Survey

Department of Mathematics
CHRIST NAGAR COLLEGE, MARANALLOOR, THIRUVANANTHAPURAM
Course Outcome - Indirect Attainment for
 Academic Year : 2019-2022 Semester: 1
Indirect assessment (Course Exit Survey) - Evaluation Report
 Note: MA-Marks Allotted by the student in a specific CO, %- Percentage of Marks in a specific CO

Sl No.	Student Name	CO1		CO2		CO3		CO4		CO5	
		MA	%	MA	%	MA	%	MA	%	MA	%
	Maximum Marks	5	5	5	5	5	5	5	5	5	5
1	Adithya G P	5	100	5	100	5	100	5	100	5	100
2	Anamika Gopan S	5	100	5	100	4	80	5	100	5	100
3	Anjali B	5	100	5	100	5	100	5	100	5	100
4	Darsha Nair	5	100	5	100	4	80	4	80	5	100
5	Dhanya.RA	5	100	5	100	5	100	4	80	4	80
6	Hashima.D.S	4	80	5	100	4	80	4	80	5	100
7	Meera C Dev	5	100	5	100	5	100	4	80	5	100
8	Merlin Robin	4	80	5	100	4	80	5	100	5	100
9	RAJI R L	5	100	5	100	5	100	4	80	5	100
10	Sreehari T P	5	100	5	100	4	80	4	80	4	80
11	VishnuPriya. O.B	4	80	5	100	5	100	4	80	5	100
12	Aiswarya.S.S	4	80	4	80	4	80	4	80	4	80
13	Anu Johnson	4	80	4	80	5	100	4	80	5	100
14	Arun J S	4	80	4	80	5	100	5	100	4	80
15	Aruna.M.K	5	100	4	80	5	100	5	100	5	100
16	ARYA R S	5	100	5	100	5	100	5	100	4	80
17	Arya V S	5	100	4	80	5	100	5	100	5	100
18	Balagopal R S	5	100	5	100	5	100	4	80	4	80
19	Bhavani S	5	100	4	80	5	100	4	80	5	100
20	Gopika P.G	5	100	5	100	5	100	4	80	5	100
21	Haris Mohammed S.H.	5	100	4	80	4	80	5	100	5	100
22	JOJIN BS	5	100	5	100	4	80	5	100	5	100
23	Lekshmi L.M	5	100	4	80	4	80	5	100	5	100
24	Navaneeth Krishnan B I	4	80	5	100	4	80	5	100	5	100
25	Sona Vimal	5	100	4	80	4	80	5	100	4	80
26	Soorya Jose A	4	80	5	100	5	100	5	100	4	80
Course Outcomes		CO1	CO2	CO3	CO4	CO5					
Threshold for Attainment Calculation(%Marks)		50	50	50	50	50					
Total Number of students Attempted		26	26	26	26	26					
Number of Students Attained the Target		26	26	26	26	26					
% of Students Attained the Target		100	100	100	100	100					
Attainment Level		3	3	3	3	3					

Give marks to each CO based on the given scale	
EXCELLENT	5
VERY GOOD	4
GOOD	3
FAIR	2
POOR	1

Course Exit Survey Questions

- 1: How do you rate your ability to recall the main works of the prescribed fiction writers?
- 2: How do you rate your ability to observe the craft of the fiction writers?
- 3: How do you rate your ability to research how the resource language is used as a medium in creative writing?
- 4: How do you rate your ability to analyze the character sketches in the prescribed works?
- 5: How do you rate your ability to judge the novel on the basis of subject and relevance among contemporary Hindi novels?

10. SAMPLE CO ATTAINMENT

CO Attainment

Semester 6	Course Code	CO1	CO2	CO3	CO4	CO5	Remarks
	MM 1641	3.00	3.00	3.00	3.00	2.82	
	MM 1642	3.00	3.00	3.00	3.00	3.00	
	MM 1643	0.84	0.84	0.84	0.48	0.30	Not Attained
	MM 1644	3.00	3.00	3.00	3.00	3.00	
	MM 1645	2.28	2.28	2.28	2.28	2.28	
	MM 1661.1	1.56	1.56	1.56	1.56	1.56	

PSO-PO Attainment

Semester 6	Course Code	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	Remarks
	MM 1641	1	1	1	1	1.8	3	2.8	2	
	MM 1642	1	1	1.3	1	2.6	3	2.8	2	
	MM 1643	0.2	0.2	0.2	0.2	0.3	0.4	0.6	0.3	Not Attained
	MM 1644	-	-	2	-	1	2.4	2.4	2.8	
	MM 1645	1.1	1.3	1.3	1.5	1.6	1.8	1.6	1.2	
	MM 1661.1	1.4	1.4	1.4	1.2	1.4	1.2	1.2	1.2	

Overall attainment

Semester 6	Course Code	Overall Mapping	Minimum attainment	Overall Attainment	Remarks
	MM 1641	1.7	2.0	3.0	
	MM 1642	1.8	2.0	3.0	
	MM 1643	1.5	1.0	0.7	Not Attained
	MM 1644	2.1	2.0	3.0	
	MM 1645	1.9	2.0	2.3	
	MM 1661.1	2.8	2.0	1.6	Not Attained

11. SAMPLE PO ATAINMENT OF A PROGRAMME (Department of Mathematics)

Academic	Semester	Course	PO1	PO2	PO3	PO4	PO5	PSO 1	PSO 2	PSO 3
ACADEMIC YEAR 2019-20	SEMESTER 1	EN 1111.1	1.8	2.2	0.9	2.6	2.3		2.6	2.6
		EN 1121		2.5	3	2.5	2.2		2.5	2.7
		MM 1141	0.5	0.7	1.6	1.3	1.6	1.1	0.9	1.9
		ST 1131.1			0.9	0.9		0.9	1.3	2.3
		PY 1131.1	0.6	1	1.3	1.1	1.3	1.1	0.6	0.9
		ML 1111.1	0.9	0.9		1.8	2.3		1.2	
		HN 1111.1	1	1		1.5	1.4		2	1
	SEMESTER 2	PY 1231.1	0.8	1.5	1.1	1.3	1.5	1	0.8	0.8
		ST 1231.1			0.8			1.5	1.1	2.1
		MM 1221	0.9	0.9	0.9	1.3	1.9	2.2	1.5	1.2
		EN 1212.1	2.5	2.5		2	2.4		1.5	2.8
		EN 1211.1	1.5	2.2		2.6	2.1	2.2	1.8	2.6
		ML 1211.1	0.9	1.5		1.3	2.6		1.5	
HN 1211.1	1.8	1.8	0.9	0.9	1.8	0.9	1.5	1.8		
ACADEMIC YEAR 2020-21	SEMESTER 3	ST 1331.1			0.8		0.8	1.7		2.3
		PY 1331.1	0.9	1.3	1.8	1.5	1.8	1.5	0.9	1.2
		MM 1341	0.9	0.9	1.8	1.3	1.9	2.1	2.4	1.1
		EN 1311.1	2.2	1.3		2.5	2.6	1.8	2.1	2.6
		ML 1311.1	1.1	0.9	0.9	1.8	1.8		1.2	
		HN 1311.1	1.8	0.9	0.9	0.9	1.3	2.6	0.9	
	SEMESTER 4	ST 1431.1			0.8		0.8	1.7		2.3
		PY 1431.1	0.8	1.1	1.5	1.3	1.5	1.3	0.8	1
		MM 1441	0.8	0.8	1	1.5	1.5	1.7	1.8	1.3
		EN 1411.1	1.8	3	1.7	1.5	3	1	2.7	2.2
		ML 1411.1	1.2	0.8		1	1.9		1.1	
		hn 1411.1		1	1	2	2.5	1	2	1
ACADEMIC YEAR 2021-22	SEMESTER 5	MM 1541	0.8	0.5	0.8	0.8	1.3	2	1.8	1.2
		MM 1545	1	1	3	1.3	1.4	3	2.2	1.8
		MM 1544	1	1.4	1.2	2.4	2.2	2.6	2.3	2.7
		MM 1542	0.5	0.5	0.6	0.4	1.2	1.5	1.4	1
		MM 1543	0.2	0.2	0.2	0.2	0.4	0.6	0.5	0.4
	SEMESTER 6	MM 1641	0.8	0.6	0.6	0.8	1.3	2	1.9	1.3
		MM 1644			1.8		0.9	2.1	2.1	2.5
		MM 1645	1.3	1.3	1.4	1.7	1.8	1.9	1.8	1.3
		MM 1661.1	2.3	2.3	2.3	1.9	2.3	2	2	2
		MM 1642	0.8	1	1	0.8	2.2	2.6	2.4	1.7
		MM 1643	0.6	0.6	0.6	0.3	0.6	1.2	1.3	0.7
		Overall Attainment			1.1	1.3	1.2	1.4	1.7	1.7